DOCUMENT RESUME

ED 459 449 CS 014 591

AUTHOR Hawley, Melissa A.

TITLE A Balanced Literacy Approach Incorporating Phonological Awareness in Kindergarten.

PUB DATE 2001-12-00

NOTE 54p.; Action Research Project, Saint Xavier University and SkyLight Professional Development Field-Based Master's Program.

PUB TYPE Dissertations/Theses (040)

EDRS PRICE MF01/PC03 Plus Postage.

DESCRIPTORS Action Research; High Risk Students; *Instructional Effectiveness; Kindergarten; Primary Education; *Reading Improvement; *Reading Instruction; *Reading Readiness; *Reading Skills; *Reading Strategies

IDENTIFIERS Balanced Literacy; Direct Instruction; *Phonological Awareness

ABSTRACT

Acquiring literacy is one of the most important elements in building a foundation for success in education and life. This study describes a program that was implemented from January through May, 2001, for improvement in phonological awareness, alphabetic awareness and reading readiness skills through explicit instruction of phonemic awareness with at-risk kindergarten students. The targeted population consisted of 12 kindergarten students, 8 males and 4 females, from working class and low-income families located in eastern Iowa. This study implemented phonological awareness with students who had been identified as low in phonological/phonemic awareness. The lack of alphabetic awareness, print awareness, and phonological awareness was documented through entrance screenings and assessments revealing students' phonological ability. Analysis of probable cause indicated that incoming students lacked exposure to print as well as the readiness skills necessary for formal reading instruction. Analysis of language arts surveys reflected a lack in reading readiness, alphabetic awareness, concepts of print, and decoding skills. Review of the curriculum content reflected an over-emphasis on large group instruction and a lack of phonological/phonemic awareness skills. A review of the solution strategies suggested through literature reviews, combined with the problem, resulted in the selection and identification of two categories for intervention: implementation of explicit phonological/phonemic instruction and literacy acquisition through the instructional focus of reading strategies and skills. These reading interventions were delivered over a 15-week period, in small groups of 5-6 children. Post intervention data indicated and increase in students' phonemic awareness and literary abilities. The data showed increased understanding of reading and comprehension strategies. (Contains 66 references and 8 figures of data. Survey instruments are attached.) (RS)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 459 449

A BALANCED LITERACY APPROACH INCORPORATING PHONOLOGICAL AWARENESS IN KINDERGARTEN

Melissa A. Hawley

An Action Research Project Submitted to the Graduate Faculty of the

School of Education in Partial Fulfillment of the

Requirements for the Degree of Masters of Art in Teaching and Leadership

St. Xavier University & Skylight

Field Based Masters Program

Chicago, Illinois

December 2001

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

M. A. Hawley

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

CS 014 591

ABSTRACT

Acquiring literacy is one of the most important elements in building a foundation for success in education and life. This study describes a program that was implemented from January through May, 2001, for improvement in phonological awareness, alphabetic awareness and reading readiness skills through explicit instruction of phonemic awareness with at-risk kindergarten students. The targeted population consisted of 12 kindergarten students, 8 males, and 4 females, from working class and low-income families located in eastern Iowa. This study implemented phonological awareness with students who had been identified as low in phonological/phonemic awareness. The lack of alphabetic awareness, print awareness, and phonological awareness was documented through entrance screenings and assessments revealing students' phonological ability.

Analysis of probable cause indicates that incoming students lacked exposure to print as well as the readiness skills necessary for formal reading instruction. Analysis of language arts surveys reflected a lack in reading readiness, alphabetic awareness, concepts of print, and decoding skills. Review of the curriculum content reflected an over-emphasis on large group instruction and a lack of phonological/phonemic awareness skills.

A review of the solution strategies suggested through literature reviews, combined with the problem, resulted in the selection and identification of two categories for intervention: implementation of explicit phonological/phonemic instruction and literacy acquisition through the instructional focus of reading strategies and skills.

These reading interventions were delivered over a 15-week period, in small groups of 5-6 children. Post intervention data indicated an increase in students' phonemic awareness and literary abilities. The data showed increased understanding of reading and comprehension strategies.

SIGNATURE PAGE

This project was approved by

June Tupper

Advisor

Hugh Ball Brooks, Ed. D.

Advisor

Beverly Gulley

Dean, School of Education

This work is dedicated to everyone who believed in me.

~Melissa A. Hawley

Table of Contents

CHAPTER 1- PROBLEM STATEMENT AND CONTEXT.....1

General Statement of Problem.....1

Immediate Problem Context.....1

The Surrounding Community.....2

National Context of Problem.....5

CHAPTER 2- PROBLEM DOCUMENTATION.....8

Problem Evidence.....8

Probable Causes.....13

CHAPTER 3- THE SOLUTION STRATEGY.....16

Literature Review.....16

Project Objectives and Processes.....21

Project Action Plan.....22

Methods of Assessment.....29

CHAPTER 4- PROJECT RESULTS.....30

Historical Description of the Intervention.....30

Presentation and Analysis of Results.....32

Conclusions and Recommendations.....37

REFERENCES.....39

APPENDICES.....44

Appendix A- Informal Survey of Phonological Awareness Test.....44

Appendix B1,B2,B3- Kindergarten Information and Development Survey.....45

CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem

Students of the targeted population exhibited a deficiency in phonological awareness, concepts of print/print awareness and alphabet mastery. The at-risk kindergarten students failed to develop the literacy skills necessary to become successful readers. Evidence for the existence of the problem included teacher observations, results of reading tests, teacher made tests, report cards, kindergarten screening, and parent comments. Data reflected a lack in reading strategies, phonological/phonemic awareness, word recognition and alphabet awareness and mastery.

Immediate Problem Context

The research was conducted in a kindergarten through fifth grade facility suburban/rural elementary school in midwestern Iowa with a 2000-2001 enrollment of 373 students. The average class size was 19. When examining ethnicity, 21.7% of the student population are considered minority, and 78.3% majority. Of the total student population, 5.89% of the students are special education. Of the 373 students, 213 qualified for free/reduced lunch. Low income students constituted 50% of the population. Low income students were from families receiving public aid, being supported in foster homes with public funds, or eligible to receive free/reduced lunch.

In addition to the principal, there were 42 certified staff members, each averaging 20 years or more in the classroom. 32 have a bachelor's degree or higher, and 10 a Master's Degree. Seventeen individuals were considered support personnel. The male/female ratio was 1:6.

The school housed two preschool classrooms, one for special needs children, and the other an all day government funded at-risk program. Two kindergarten programs were available, one all day at-risk program, and two half-day sections. Three sections of first, second, third, fourth and fifth grade were available. Four special education teachers serviced all classrooms in an inclusion setting. One art teacher, one music teacher, one band/orchestra teacher, one gifted/talented teacher, one physical education teacher, one Reading Recovery/Title 1 teacher, one counselor, one psychologist, one speech and language pathologist, and a media specialist comprise the building staff. Support personnel and non-certified staff members constituted the balance of the staff.

Core requirements within the building included fine arts, health, safety, mathematics, language arts, reading, science, physical education, and social studies. In addition to these subject areas, were special education/gifted and talented programs, departmental instruction in grades 4-5, vocal music, visiting artists, instrumental music programs, and writing across the curriculum. Mathematics at this level was taught using national mathematics standards as a guide. Heath mathematics series was used to accomplish learning outcomes at each grade level. Strands taught included problem-solving, number theory, whole numbers, fractions, decimals, geometry, and measurement. Assessment was tied directly to instruction through the use of paper/pencil tests, writing assignments, daily class work, as well as observation of class performance to determine student success.

The Surrounding Community

Within the district, one urban and three rural communities were served. Approximately 17,366 students were living in areas that can be described as inner city, affluent city, rural city or farm. The district, considered widely diverse, had a majority

population of 72%, and a minority population of 28%. One superintendent and two associate superintendents were employed, as well as a team of 13 other individuals assisting in various support programs. Within the 39 district facilities, 2,366 staff members promote learning for students in grades pre-kindergarten through 12th grade. Fourteen programs and schools within the district have received the First in the Nation in Education or (FINE) award. Other highlights include school business partnerships, known as Stellar Team Achievement Recognition (STAR), and the Helping Us Grow (HUG) awards.

In the 2000 school year, the district had an operating budget of $110,192,717. Approximately $81 million was spent on instruction and instructional support, $13 million to support services, $5 million to the Area Education Agency, and $9.5 million on administration.

Staff members implemented long and short range plans for district improvement. A strategic planning team met regularly, consisting of teachers, administrators, board and community members. The teams mission was to review and revise the district goals, mission, and vision. An outcome stemming from the committee, was an initiative called All Children Excel. The priority areas included developing literacy, diversity, affirmative action hiring, extracurricular activities, school climate, special education, student achievement, student assignment, and discipline. Within each building, staff members implement individual improvement plans and reform strategies to address these goals.

The school district core curriculum met, and/or exceeded the state requirements of Iowa in many instances. The junior high schools required health, language arts, mathematics, physical education, science, and social studies. Elective coursework includes art, business education, foreign languages, computer education, home economics, industrial arts, music, and reading.

At the high school level, four semesters of mathematics were required, seven semesters of language arts, eight semesters of physical education, four semesters of science, and six semesters of social studies. In addition to these courses, art, business education, driver education, foreign language, home economics, health, humanities, industrial arts, journalism, drama, public speaking, and vocational education were offered.

In addition to these components, all schools had adopted brain based instructional practices and strategies. Schools within the district were in various stages of implementation. In addition to Multiple Intelligences, components included absence of threat, collaboration, enriched environment, immediate feedback, meaningful content, adequate time, and mastery. Absence of threat was achieved through the incorporation of procedures, agendas, consistency, target talk, lifelong guidelines, and teaching brain functions or brain biology. Collaboration was achieved through cooperative grouping, class meetings, and community building. An enriched environment consisted of study trips that were relevant and authentic to the learner. Classrooms contained artifacts, and demonstrated immersion of content. Calming colors were used such as blues, greens or brown. Immediate feedback was provided through the use of rubrics, guided practice, teacher monitoring, and student binders containing procedures. Students were engaged in activities that built mental processes, reflected personal learning styles, and drew upon higher order thinking. Students were given adequate time to master concepts and to connect concepts to the world. Student mastery was shown through classroom performance, portfolios, paper/pencil tests, transference and teacher observation.

Through these components and others, the district strove to reach its vision, to be recognized as the district of choice.

In 2000-2001, the total population of the city and surrounding statistical area was 357,813. According to the U.S. Census, the median age was 35.4 years. 29% of households in the area earned under $19,000, post-taxes. 24% range between $20-35,000, 19% range from $35-50,000, and 28% above $50,000. The area housed 96 churches representing all denominations, 94 elementary schools, 21 middle schools, 21 high schools, 41 private or parochial schools, 3 technical schools, 2 community colleges, 2 four year colleges, 3 universities, 1 graduate center and 1 chiropractic college. Of the 99,265 students enrolled, expenditures were approximately $4,018 per pupil. The graduation rate in the area was 94%, and the student-teacher ratio; 17.5 students to 1 teacher in the high schools, and 19.8 students to 1 teacher in grades K-8.

National Context of the Problem

The ability of one to communicate effectively, to learn and understand stems from one of the greatest challenges a child faces in education today, learning how to read. Reading, an essential skill in life, determines an individual's future success or failure in life (Slavin, 1995). To comprehend literacy problems facing children today, one must understand the differences between phonological and phonemic awareness, explicit versus implicit phonological instruction, the history of literacy education, and the benefits of early intervention programs for at-risk students (Cunningham, 1990).

Research has shown that failure to read by third grade is associated with greater risks of juvenile delinquency, failure to graduate from high school, teenage pregnancy, and other problems. According to a 1997 report by National Commission on Literacy, twenty-six million adults in America can not read or write (NCL,1985). In addition to

that figure, 60 percent of incarcerated persons, 75 percent of the unemployed, and 47 percent of 17 year old minority youth had low levels of literacy. That number is estimated to grow by 2.3 million each year. In light of these alarming conclusions, teachers must provide their students with experiences that help promote reading abilities.

Research has demonstrated that children lack phonemic awareness, the understanding that speech is composed of sounds in a series (Yopp, 1992). Phonemic tasks are difficult for young children.

Within the past twenty years, much attention has been placed upon phonological and phonemic ability. However, the idea of phonemic awareness dates back to the early 1500's when Valentin Ickelsamer, a German educator abandoned traditional alphabet methods of teaching reading. His research stated that "speech sounds existed long before they were represented by letters" (Grace, 2000, para.2). Speech sounds were considered primary, and letter representation secondary. Ickelsamer taught students to analyze spoken word into sounds. Only when children could distinguish individual sounds in speech, were they ready to read.

Phonemic awareness is also addressed by Richard Edwards in an 1867 fourth reader on phonic analysis. This individual advocated slow pronunciation of words, to stretch out syllables and phonemes (Edwards, 1867).

Phonemic awareness can be confused with phonological awareness. Whereas phonemic awareness activities are primarily oral, phonological awareness activities are more extensive. "Phonological awareness is an umbrella term that includes phonemic awareness of words at the phoneme (sound) level." (Blevins, 1999, p.4). In addition to words larger than the phoneme, words within sentences, rhyming within words, syllabification, phonemes, and phoneme features are included.

Research has indicated that phonemic awareness has a causal relationship with reading ability (Rosner and Simon, 1971; Wagner, Torgeson, Laughon, Simmons & Rashotte, 1993), but there is an unresolved debate regarding its acquisition.

Many theorists argue that phonemic awareness is a natural result of learning to read, while others insist that phonemic awareness is a prerequisite of reading. Furthermore, the two best predictors of early reading success are alphabet recognition and phonemic awareness (Adams, 1990).

CHAPTER 2

PROBLEM DOCUMENTATION

Problem Evidence

In order to document the extent of literacy deficiencies and lack of phonological awareness in kindergarten, three types of data collection were used at the beginning of the second semester. These included a student survey of phonological awareness tasks (Appendix A), The Kindergarten Information and Development Survey (KIDS) (Appendix B), and The Phonological Awareness Test (PAT), developed by Carolyn Robertson and Wanda Salter and obtained through LinguiSystems.

Student Survey

A nine item informal phonological awareness survey (Stanovich, 1994) was used to measure separate tasks of phonological ability. Students were assessed individually within the following categories: phoneme deletion, word to word matching, blending, sound isolation, phoneme segmentation, phoneme counting, deleted phoneme, oddity tasks, and sound to word matching.

Each aspect was represented through a question that required an oral response that indicated student ability in each category of phonological awareness. A total of nine questions revealed aptitude. Question 1 indicated student performance in phoneme deletion. This phoneme deletion task required students to take away a sound from a word and pronounce the new word from the remaining sounds. Word to word matching was displayed in question 2. Question 3 indicated student ability to blend isolated sounds together verbally. Question 4 represented beginning sound isolation in

words. Student ability to isolate beginning, medial, and ending sounds was demonstrated in question 5. In question 6, student ability to count the number of phonemes or sounds in a word was assessed. Phoneme or letter deletion was represented in question 7. This skill is comparable to the task presented in question 1. The oddity task presented in question 8, is defined as differentiation of words that have dissimilar initial sounds. The final skill, sound to word matching was addressed in question 9. Students replied as to whether an isolated sound was found in a given word.

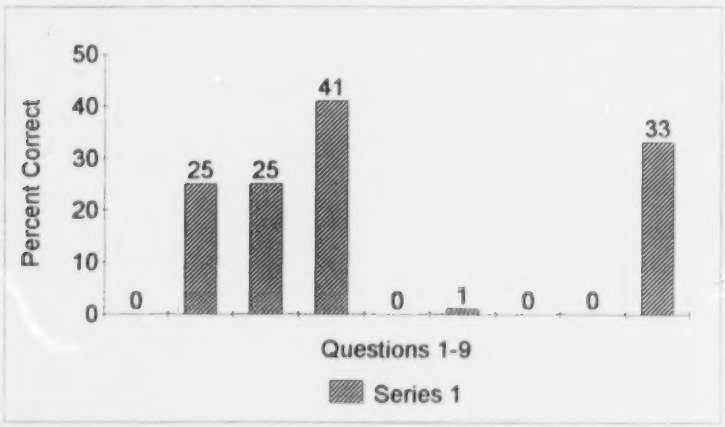


Figure 1 Pretest Results of Phonological Awareness Survey

Skills Assessed by Questions

1. Phoneme deletion
2. Word Matching
3. Blending
4. Initial Sound Isolation
5. Sound Isolation
6. Phoneme Counting
7. Deleted Phoneme
8. Odd Word Out
9. Sound to Word Matching

The phonological awareness survey provided data pertaining to the 12 students questioned. Figure 1 shows the results of this survey. The task with the highest percentage of success was question 4, which represented isolation of sounds. When asked to identify the first sound in a given word, 41% or 5 out of 12 students were successful. Tasks with the least success dealt with phoneme deletion and phoneme segmentation, questions 1, 5, and 7. None of the students were able to segment words into phonemes or take sounds from the original words away and verbalize a new one.

The Kindergarten Information and Development Survey (KIDS) was given to the targeted group of students before they entered kindergarten, This assessment was given to the students individually within the first week of school commencement. Attention was focused on language arts and readiness skills. Specific tasks were examined, including verbal fluency, letter recognition, ability to follow verbal directions, and positional words.

A component of the test dealt with readiness skills, and subsequent ability to comprehend positional words, follow a sequence of directions and execute related tasks. Tasks included object placement, print awareness as well as terminology such as over, under, through, forward, backward, above, top, bottom, and next. Understanding language is an essential part in reading readiness and literacy acquisition.

The readiness portion of this survey, provided information pertaining to ability upon entrance. Figure 2 represents correct responses regarding those skills outlined above.

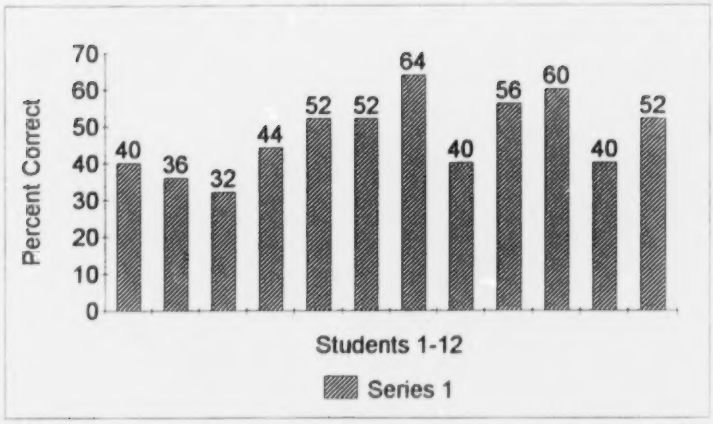


Figure 2 Kindergarten Readiness Developmental Survey Results

Upon further examination of Figure 2, it indicates that the average student was 47% ready to enter kindergarten. Varying degrees of abilities were evident as low readiness skills ranged from 32% to 64%, respectively.

When examining the language arts portion of the survey, it was not surprising that the student scores are almost identical to the readiness percentages. Ability to retain information, understand directions, communicate, write ones name, and demonstrate fine motor skills appear to be directly related to maturation or readiness skills. With the exception of two scores, the language arts subsection (Figure 3) parallels readiness percentages, as readiness skills complement literacy acquisition.

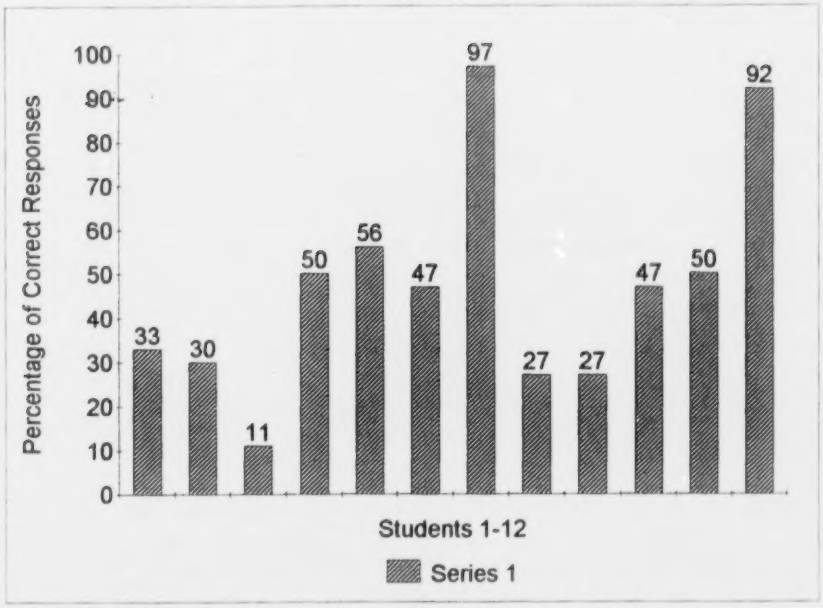


Figure 3 Language Arts Kindergarten Developmental Survey Results

The Phonological Awareness Test

The kindergarten students were administered the Phonological Awareness Test (PAT) to measure their phonological awareness ability. Students were questioned individually and assessed in the following categories: rhyming, segmentation, syllables, blending, and phoneme deletion tasks. Each task required a response which measured student knowledge and ability in phonological awareness. Figure 4 details these results. Section 1 shows ability to differentiate between rhyming words. This skill required the student to listen to words and verbalize whether they share the same ending sound. This category had a student average of 60% correct. Section 2 displays student's ability to produce rhyming words. The student average was 40% correct. In section 3, students were assessed on their ability to identify the amount of syllables within words. Section 4

required students to take away sounds from a word and verbalize the resulting word with the remaining sounds.

Tasks	Percent of Correct Responses
rhyming	60%
segmentation	40%
syllables	20%
blending	10%
deletion	18%

Figure 4 Pretest Results of (P.A.T.) Phonological Awareness Test

Probable Local Causes

The students in this study are considered at-risk, and come from low income families. Upon entrance to the program, sufficient evidence regarding special education, retention or academic concern within the family was submitted for review prior to admittance.

Few of the students had participated in a preschool program prior to kindergarten. Upon review of those that attended preschool, it was apparent that the curriculum approach was social-developmental. Teaching methods varied, as did program objectives and academic content.

Students in this study performed poorly on entrance tests related to school readiness, phonological awareness and alphabetic awareness. Within the district, children unable to master reading objectives by kindergarten completion were considered at-risk for reading failure, and qualified for intensive remedial reading assistance in first grade.

The literature suggested that there are numerous underlying causes that lead students to lack literacy skills necessary to become successful readers. Family income, background experiences, print exposure and home values contribute to ability as an emergent reader. Phonological awareness, processing and decoding skills factor in as well as curriculum and instructional practice.

Research stated that there were a growing number of children who were not sufficiently prepared to start school. A recent Carnegie Foundation survey of 7,000 kindergarten teachers noted they believed that 35% of the nation's students were not adequately prepared to start school (May, 1997).

Those children who are viewed as unready, are often identified as at risk for school failure. Traditionally, students considered at risk are defined according to family characteristics, personal ability or demographics. Minority, low socioeconomic status, single parent families or low parental educational attainment play a large role in determining school success.

Specific literacy experiences or print exposure prior to school entrance, may affect reading progress. Consensus has grown in regard to the effect print exposure has on the emergent reader. Adams (1990) stated that many at-risk students have significantly fewer opportunities to engage in meaningful literacy-related experiences.

Many middle class children come to school with thousands of hours of print exposure and guidance about print, where less advantaged children may have little or no such experiences. The value placed upon reading in the home makes a great impact on the emergent reader. There are significant differences in the histories of children. If a child detects that no very strong value is placed on reading and literature by the adults around him, especially in the early stages of learning to read, then they feel no compulsion to develop reading skills beyond the minimal, functional level we all need simply to carry on our daily lives in our print dominated society. As McGill-Franzen (1992) stated, "We learn

to read by the company we keep, and children are in the company of adults from the moment they are born" (McGill-Franzen, p.58).

For as many as 20% of students, reading is not an automatic skill. Research has proven that the connection of alphabetic symbols to specific sounds is a significant aspect of reading. Achievement in reading and spelling is closely linked to phonological awareness, or the ability to manipulate the structure of words. In 1999, Troia noted that children who were at risk for reading failure often perform poorly on measures of phonological awareness (Troia, 1999). Their ability to manipulate the phonological structure of words is proven to be an indicator of subsequent reading and spelling achievement. If children are unable to hear or manipulate sounds in spoken words, decoding text becomes extremely difficult. As Ellis stated (1997), "Patterns of understanding have to be systematically instilled so the reader can crack the alphabetic code. We have to make that connection to specific sounds in order to create meaning" (Ellis, p.20). Children arrive at school with varying degrees of reading ability. Divergent abilities are the result of a multitude of background knowledge surrounding reading instruction prior to kindergarten. Students have been exposed to a wide range of curriculum practices and beliefs prior to school entrance. Opinions differ regarding best curriculum practices. Many children fail because their personalities or individual ability clash with instructional approaches. Historically, we have swung from a whole word methodology to phonics, to direct instruction to whole language.

These swings have had resultant swings of achievement (Stahl, 1998). When curricular approaches are disappointing, programs are quickly rejected. These differences account for vast diversity in teaching and curriculum practices across the nation.

CHAPTER 3

THE SOLUTION STRATEGY

Literature Review

Learning to read and appreciate reading is a journey that continues throughout a child's education and life. The ability to read with success is directly linked to language, social interactions and instructional factors. Evidence suggests that children's literary experiences prior to first grade make a difference in subsequent reading ability. Success depends on how quickly decoding strategies are acquired (Leslie, 1999).

To develop automaticity in reading, children need much exposure to vocabulary, appropriate text, and scaffolded reading opportunities. In 1999, Troia stated that children who have been immersed in a literary environment in which words, word games, rhyming, and story reading are evident are more likely to understand the reading process rather than those who experience an impoverished literacy environment.

Without these experiences, many at risk children are less likely to develop automatic decoding skills. Researchers have found that the consequences of a slow start in reading become monumental as they accumulate over time. Torgeson stated that one solution to the problem of reading failure is allocation of resources for early identification and prevention (Torgeson, 2000). School based efforts should revolve around the early elementary years prior to third grade. Once children fall behind, intervention tactics become remedial rather than preventive.

Many local school districts and state departments test children at school entry to determine kindergarten readiness. Some believe readiness tests are not sufficient due to the fact that individual children acquire skills at different rates and in different ways. (Meisels,1989). Without other assessment sources, data could be misleading.

At risk children need the right level of intensity in their reading instruction. Children at risk for reading failure require more skills to be structured, taught systematically, and explicitly by the teacher (Donnelly, 1987). Due to the fact that literacy learning is developmental, teachers need to make accommodations for the differences in abilities that can be found within the classroom. Understanding these developmental differences is an important source of knowledge in designing a balanced curriculum in reading. A balanced combination of reading activities is key in beginning readers' success.

According to Wharton-MacDonald, effective practices in reading instruction must incorporate a balanced approach of literature, strategies and skills. Literary instruction is engaging, extensive and diverse. Decoding skills are taught explicitly, and students have ample opportunity to engage in authentic, integrated reading and writing activities (Wharton-MacDonald, 1998). Modeling and teaching of higher and lower order thinking are evident and students of weaker ability have additional support.

Effective teaching includes building background knowledge, developing a clear purpose for reading and providing appropriate materials. In order for students to succeed, educators need to gather materials that match students ability and allow for success. Choosing appropriate text is part of a complex, curricular process that is not a spontaneous process, but a decision that is based on literary quality and embedded within framework of a "dynamic social setting, and integrated into the context of larger curricular issues"(Pressley, p.365). For emergent readers, teachers should choose books which contain imaginative language, natural language and familiar speech patterns. Children should have much opportunity to explore literary material as exposure to effective uses of language is crucial to reading development.

Selection of appropriate text is crucial, as students preconceived notions of themselves as readers can positively or negatively influence subsequent reading behavior. Engaging students in challenging tasks promotes personal responsibility. When students can choose stories or literary tasks of interest, with the proper amount of difficulty, they will be more intrinsically motivated to read on their own (Teale & Sulzby, 1996).

Effective teachers know that their are few things more discouraging than making sense of incoherent text. When presented with challenging tasks, there is a fine line between boredom and frustration. The best way to ensure students have optimum text comprehension is to provide proper background knowledge and strategies. Prior to comprehension, students must be able to recognize letters and words automatically. Without this, comprehension is difficult.

Comprehension of content and reading strategies play an essential role in any language arts curriculum. According to research, comprehension skills are an integral part of learning to read. Comprehension skills are the ability to use prior knowledge and context to assist in reading and make sense of what is read and heard (Taylor, 1999). Students with good comprehension skills organize content, activate prior knowledge and monitor their reading progress. To insure mastery of these skills for at-risk students, teachers need to deliver instruction explicitly and systematically in small ability groups. Without intensive instruction for children lacking literacy skills, students are apt to lag significantly behind their peers (Torgeson, 2000).

According to Stahl, small groups or one on one assistance in reading makes a difference. Children are more likely to succeed when their are two groups of six with two teachers rather than 12 children with one teacher (Stahl, 1998). Educators assist children by modeling the use of good comprehension strategies. For those who need more instruction, it is imperative that teachers guide children to attend to the order of letters in

words and give children ample practice in reading phonetically patterned words. Those who have been considered most effective in teaching reading are skilled in teaching coaching and scaffolding (Taylor, 1999). In scaffolding, the adult guides and supports the child's learning by building upon prior knowledge. The concept is a language intervention that is tailored to the individual child's needs.

Coaching is based on asking open ended questions that guide and encourage the student to gain comprehension strategies, elaborate on their own ideas and communicate to others. The teacher provides clarification, evaluation, and explicit information regarding rules and logical relationships (O'Connor, 2000).

Studies have shown that effective beginning reading instruction contains a balance of activities designed to improve word recognition, phonetic ability, phonemic and phonological awareness (Wharton-MacDonald, 1998). Most effective teachers teach decoding skills and provide many opportunities to engage in authentic reading. As children are exposed to more and more words and devote attention to patterns within words, a network of relationships among letters is built up (Adams, 1990).

In addition to being exposed to a variety of literature that promote the desire to read, beginning readers must be taught strategies to attain phonemic awareness. Children in the beginning stages of learning to read, need to learn that spoken words are composed of individual sounds or phonemes. Phonemic awareness is not only an important factor in learning to read, but a necessary prerequisite for success as a reader.

In phonemic awareness, children are given many opportunities to play with and manipulate sounds in spoken words. Activities include rhyming, stretching words, alliteration, sound isolation, blending and clapping syllables (Yopp, 1992). According to Adams (1990), if children cannot hear and manipulate sound patterns, they have difficulty making the connection between letters and sound patterns.

Once children have a good understanding of spoken language, have made the connection to the 26 alphabet letters, and 44 sounds they are able to begin phonological awareness activities, where symbols and spelling are connected to spoken words. Instruction in the relationship between letters visually have been shown to help children create automatic recognition of spelling patterns (Stanovich, 1984). Phonological awareness plays a causal role in reading acquisition. Its role in beginning reading has sparked a debate between the effectiveness of "whole language" and "phonics". Regardless of instructional preference, researchers have found phonological awareness to be an essential part of a reading program (Sensebaugh, 1996). Although, phonological awareness is not phonics. Phonics is an understanding of language at the spoken, not written level. Individuals with strong phonological awareness know that sentences can be broken down into words, words into syllables, and syllables separated into sounds. Rhyming, blending, segmenting, deletion tasks and syllables in words are addressed.

Effective beginning reading instruction contains a balance of activities designed to promote and improve word recognition. It includes phonics instruction, and reading meaningful text. Writing and spelling activities are also a part of effective reading instruction. Overall ability is affected in a positive way. Encouraging children to use invented spelling (to spell words as they hear the sounds) is necessary in developing spelling patterns, phonemic and phonological awareness (Stanovich, 1984). Effective teachers intertwine these activities to create a balanced language arts curriculum, that engages readers through informative and engaging text.

In response to recommendations found in the literature review, the following project objectives and processes were developed for this action research project that was implemented in January, 2001.

Project Objectives and Processes

As a result of the implementation of phonological awareness strategies during the period of January 2001 to May 2001, the kindergarten students from the targeted class will demonstrate an improvement in reading readiness, and increase their phonological awareness ability and apply it into the areas of language arts, as measured by teacher observations, results of phonological awareness tests, an informal survey, and kindergarten entrance screenings.

Process Statements

In order to accomplish the project objective, the following processes are necessary:

1. Activities that promote phonological/phonemic awareness will be incorporated into the existing curriculum.
2. A series of learning activities that address reading strategies will be scheduled within the instructional plans.
3. Students will be taught word recognition strategies by coaching.
4. Small, flexible groups will be scheduled to include phonological awareness activities to promote emergent literacy and reading readiness.

Project Action Plan

The following plan was designed to incorporate the solution component from January, 2001 to May, 2001: improving phonological awareness, reading readiness and language arts skills and through the use of explicit phonological/phonemic awareness instruction.

August-September 2000

Kindergarten entrance screening was completed and reviewed.

The kindergarten screening included:

Readiness inventory (directional terminology, letter recognition, verbal fluency, and writing/recognizing letters in one's name)

Week One~January 22

Gather baseline data

Phonological Awareness Survey

Week Two~January 29

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify ending sounds in text and high frequency words: I, can, not, go, we, will, you, he, she, like

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

rhyming tasks

onset/rime patterns- "at" word family

Week Three~February 5

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify middle sounds in text and high frequency words: I, can, not, go, we, will, you, he, she, like

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

rhyming/alliteration tasks

onset/rime patterns- "an" word family

Week Four~February 12

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify beginning sounds in high frequency words: I, can, not, go, we, will, you

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

rhyming/alliteration tasks

oddity tasks

onset/rime patterns- "ack" word family

Week Five~February 19

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify ending sounds in text and high frequency words: I, can, not, go, we, will, you, he, she, like

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

rhyming/alliteration tasks

oddity tasks/examining length of words

onset/rime patterns- "in" word family

Week Six~February 26

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify middle sounds in text and high frequency words: I, can, not, go, we, will, you, he, she, like

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

oral blending/syllables

stretching words out

onset/rime patterns- "it" word family

Week Seven~March 5

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify beginning sounds in high frequency words: I, can, not, go, we, will, you

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

oral blending/segmentation

syllables/strategies of a good reader

onset/rime patterns- "ing" word family

Week Eight~March 12

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify ending sounds in text and high frequency words: I, can, not, go, we, will, you, he, she, like

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

phoneme manipulation

onset/rime patterns- "ick" word family

Week Nine~March 19

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify middle sounds in high frequency words: I, can, not, go, we, will, you

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

phoneme manipulation

onset/rime patterns- "et" word family

Week Ten~April 2

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify beginning sounds in text and high frequency words: I, can, not, go, we, will, you, not, yes, he, she, like

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

phoneme manipulation

onset/rime patterns- "en" word family

Week Eleven~April 9

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify ending sounds in text and high frequency words: I, can, not, go, we, will, you, he, she, like, no, yes

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

blends/syllables/segmentation

onset/rime patterns- "un" word family

Week Twelve~April 16

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify middle sounds in text and high frequency words: I, can, not, go, we, will, you, he, she, like, not, yes

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

blends/syllables/segmentation

onset/rime patterns- "ut" word family

Week Thirteen~April 23

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify beginning sounds in text and high frequency words: I, can,

not, go, we, will, you, he, she, like

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

inventive spelling/sounds to spelling

onset/rime patterns- "ut" word family

Week Fourteen~April 30

Reading Readiness

sound and letter recognition- alphabet awareness: Bb, Jj, Uu, Ff, Gg, Hh, Dd

identify beginning sounds in high frequency words: I, can, not, go, we, will, you

identifying ending sounds in words

Learning Strategies

shared reading

interactive writing

coaching/scaffolded writing

onset/rime patterns- "og" word family

Week Fifteen~May 7

Gather post baseline data

Phonological Awareness Survey

Phonological Awareness Test

Kindergarten Information and Development Survey

Methods of Assessment

In order to assess the effects of the interventions, students were given an informal survey in January 2001, and April 2001, to evaluate academic growth in phonemic/phonological awareness categories, such as sound to word matching, odd word out, deleted phonemes, phoneme counting, phoneme segmentation, sound isolation, blending, word to word matching and deletion tasks. The Phonological Awareness Test, administered in January and April, indicated student performance on phonological tasks such as rhyming, segmentation, isolation, deletion, substitution, blending and decoding. In September 2000, and April 2001, students participated in the Kindergarten Information and Development Survey. This assessment focused on student ability in language arts, math and general readiness skills upon entrance.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The objective of this project was to increase reading ability through the use of explicit strategies. The implementation of an organized, explicit skills program that included phonemic awareness, decoding skills, comprehension, coaching and reading strategies addressed the literary needs of the students. The targeted classroom consisted of 12 at-risk kindergarten students.

Within the classroom, a balanced approach to reading readiness was adopted that incorporated read alouds, shared reading, guided reading, alphabet awareness, concepts of print, comprehension strategies, word families and phonemic/phonological awareness activities. The strategies were implemented for 14 weeks.

Shared reading occurred daily, and was a time for students to practice active listening skills, observe reading strategies and become more fluent readers, while they developed a sense of story or content. Students listened to a story selection daily, answered questions, related personal experiences, and provided relevant comments about the story while they developed active listening skills.

Guided reading was a block of time set aside each day for students to read age and ability appropriate material within a group of 4-6 students. The books selected were closely matched to student need, ability and interest. The lessons gave the opportunity for the teacher to introduce a selection to a small group, and discuss letter discrimination and comprehension strategies throughout. Students processed print and utilized reading strategies such as checking meaning and self-correction. The text was selected to present a successful challenge for the students, but readable enough for students to proceed with minimal assistance. During this daily block of time, children boosted their confidence levels while they practiced fluency skills.

Alphabet awareness and letter sound relationships were reviewed during the course of the 14 week period. The class reviewed letters of the alphabet and their sound relationships during the project, through various activities. Children expanded their letter-sound ability and gained knowledge through rhyme, rhythm and concrete manipulation. Their ability to and map sounds to letters enabled them to begin to visualize the corresponding letters to write and utilize temporary spelling strategies.

Concepts of print or book awareness were also addressed. Through daily reading, prompting and comprehension questions, children made the connection that print represented the sounds in spoken language. They were introduced to the purposes of written language, features of the alphabet, and print conventions. Sentence structure, context, understanding the directionality of print, top to bottom movement, return sweep, book handling, and the relationship of spoken to written language were concepts integrated daily. These concepts gave children the motivation the ability to attend to the abstract components of writing, individual letters and the spoken sounds associated with them.

Another instructional technique that was used to boost fluency as a reader, was the practice of scaffolding. Scaffolding is based on the importance of social interaction to children's learning. Each child was assessed individually and provided support according to particular aptitude. Within each task, children started at their own level and worked through literacy strategies explicitly step by step according to their knowledge base. Each student worked cooperatively with the teacher or a skilled peer on tasks that would otherwise be challenging. Instructional levels built upon previous knowledge about oral language, reading and writing. Children were provided many opportunities throughout the day to demonstrate their understanding of multiple reading strategies. Children were prompted as well as told explicitly about the process they followed, to make the experience meaningful and relevant. They were asked guided questions during reading

tasks to assist in monitoring their own reading behaviors. It promoted an instructional sequence that illuminated children's strengths, while skills were attained.

The targeted group also participated in daily phonemic awareness activities. A variety of comprehensive lessons were introduced to teach rhymes and alliteration, oddity tasks, spelling patterns, blends, segmentation, syllables and single speech units or phonemes. Children were given much practice in hearing and distinguishing sounds in words, while learning how sounds and can be manipulated. Activities were appropriately sequenced to maintain a balanced reading program and sustain interest while practice was provided in phonemic awareness tasks.

Presentation and Analysis of Results

Three forms of assessments were used to gather baseline data before interventions took place. At the onset of the action research project, students reading readiness was reviewed based upon their Kindergarten Information Development Survey results (Appendix B). This screening tool provided pertinent information regarding general reading readiness and letter recognition knowledge.

After evaluation of these scores, an informal phonological survey was administered individually to the targeted group (Appendix A), and a comprehensive phonological awareness test was administered within the first week of the action research project to determine individual needs and establish baseline data. Following the curriculum modifications, the same assessments were used to gather post intervention data. Figure 5 shows the results of the Kindergarten Readiness Developmental Survey.

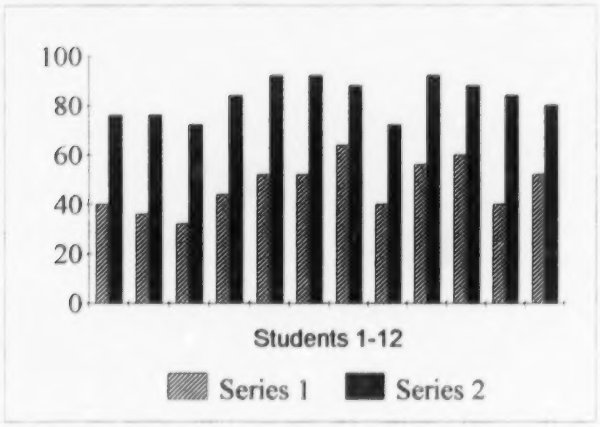


Figure 5 Posttest Results of Kindergarten Readiness Developmental Survey

The targeted group was administered an entrance survey to assess their aptitude in directional positional skills and verbal directions. The students were orally given tasks to demonstrate while scores were recorded. At the commencement of the action plan, baseline data showed an student average of 47% correct. After the interventions, student averages were 82%. This growth in reading readiness was related to a variety of factors such as an increase in time on-task and listening skills. The most probable cause of an increase in readiness performance is linked to practice, time, social conduct and literacy and language exposure.

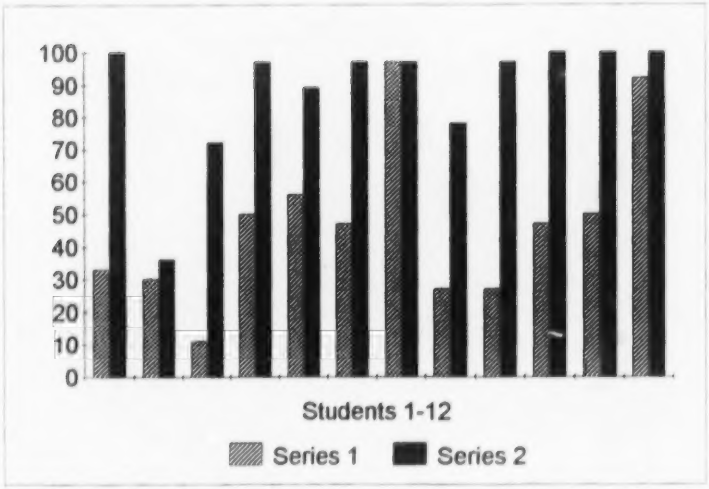
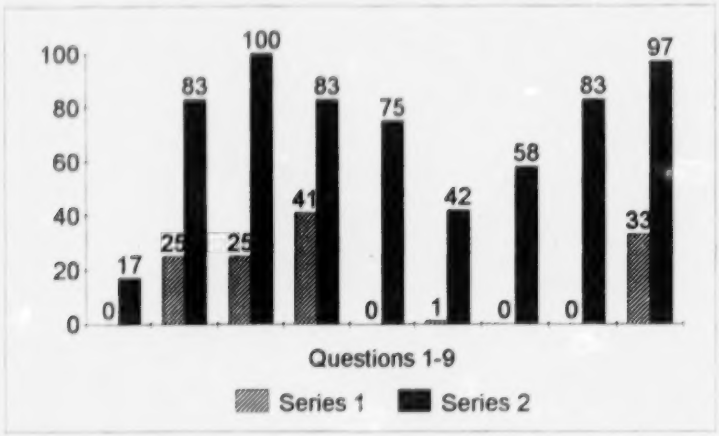


Figure 6 Posttest Results of Kindergarten Language Arts Survey

Another screening that was done during the first two weeks of the action plan, was the administration of the Kindergarten Language Arts Developmental Survey (Figure 6). Scores averaged 50% correct for initial administration to 89% correct after implementation. Letter identification and sounds, was an area where students demonstrated little knowledge on the pretest. Upon further examination of the readiness and language arts pretest scores in figures 5 and 6, it is evident that the average student was 48% ready to enter kindergarten. Varying degrees of ability were evident as low readiness skills ranged from 32% to 64%, respectively. With the exception of two scores, the language arts subsection (Figure 6) parallels pretest readiness percentages, as readiness skills complement literacy acquisition.

When examining the language arts portion of the survey, it is not surprising that the student language arts scores were almost identical to the readiness percentages during the pretest administration. Ability to retain information, understand directions, communicate, write ones name, and demonstrate fine motor skills are directly related to maturation. There was a favorable gain exhibited from pretest to posttest. The gain was

39% overall, bringing a high success rate in letter recognition, fine motor skills, sentence memory and verbal fluency. This may be attributed to the large amount of time spent in immersion in alphabetic awareness tasks, letter identification activities and literacy exposure.



Skills Assessed by Questions

1. Phoneme deletion
2. Word Matching
3. Blending
4. Initial Sound Isolation
5. Sound Isolation
6. Phoneme Counting
7. Deleted Phoneme
8. Odd Word Out
9. Sound to Word Matching

Figure 7 Posttest Results of Phonological Awareness Survey

The comprehensive phonemic awareness training and subsequent intervention appears to have had a positive impact upon all targeted areas that were represented in the phonological awareness survey (Figure 7). At the commencement of the action plan, questions 1, 5, 7, 8 demonstrated the students lack of knowledge with phoneme deletion and phoneme segmentation. After the interventions took place, scores rose 17%, 75%, 58%, and 83% respectively. Although there was some knowledge exhibited in the pretest, general posttest results indicated significant growth overall. It appears that the more significant growth areas revolved around questions 3, 5, and 8, which revolved around

blending, sound isolation and oddity tasks. The lowest percentage of success in Series 2 was the phoneme deletion tasks. It increased by 17%. This seemed to be a simple task, but many struggled with this portion of the test. The targeted group demonstrated an average knowledge base of 17% at pretest administration, and 71% mastery after interventions, showing a 55% improvement overall. Due to explicit instruction in oddity tasks, blending, segmentation and deletion tasks significant literacy gains were made by the targeted group.

Students were administered the Phonological Awareness Test (PAT), a comprehensive measure of students phonological awareness ability. The results are shown in Figure 8.

Tasks	Pretest Percent Correct	Posttest Percent Correct
rhyming	60%	89%
segmentation	40%	89%
syllables	20%	80%
blending	10%	63%
deletion	18%	84%

Figure 8 Posttest Results of (P.A.T.) Phonological Awareness Test

Rhyming word discrimination/application or the ability to hear, identify and repeat similarities or differences between letter was the students' highest overall example on the pretest. A student average of 60% was noted prior to the intervention program. A 29% increase was noted after the interventions took place. Students ability to distinguish rhyming words reached 89% mastery. A significant gain was the result of the comprehensive rhyming discrimination and production lessons.

The second portion of the test dealt with segmentation, or the ability to break down whole words into phonemes or parts. The pretest scores were at 40% prior to

interventions, and at 89% for a class average posttest. The 49% increase demonstrates high levels of understanding, as well as student ability to differentiate individual phonemes within given words. The syllabification section saw a 60% gain also. At the time of pretest administration, students demonstrated a clear lack of understanding of the concept. After exposure to the process, students had reached a high level of mastery.

The ability to hear individual sounds in succession and put them together was an area that students lacked prior to interventions. The majority of the students tested averaged 10% and realized 63% after implementation. Although the final score appeared to be the lowest scores, the growth among the students' was the second highest section, with 53% overall.

Phonemic deletion tasks, or the ability to strike beginning or end sounds within words, showed a low percentage of 18% to start, growing to 84% overall. The 66% increase between pre and posttests indicates a strong understanding by the end of the 14 week period.

Conclusions and Recommendations

Emergent readers require a explicit reading readiness program that is structured specifically to meet the literary needs of the students. A balanced curricular approach was needed to boost the academic abilities of the targeted population. Reading strategies, scaffolding, phonemic and phonological awareness were incorporated into the existing curriculum. The explicit phonemic awareness training program helped create remarkable improvement in literacy skills. Readers learned how to become more aware of their own understanding and knowledge base of material presented. In general the evidence suggests that when students use comprehension techniques correctly, fluency

levels rise, as do standardized scores.

Prior to the research and intervention plan, the quality of reading instruction was lacking structure and systematic training programs. After becoming more aware of comprehension strategies and phonemic awareness techniques, literacy abilities improved drastically, as did scores on formal and informal assessments.

The implementation of phonemic awareness was key in boosting reading readiness skills. The program included a balanced approach to language arts, which included explicit phonemic/phonological awareness activities, scaffolded learning and comprehension strategies. Phonemic awareness training is not the only component necessary for emergent readers' success, but an important prerequisite for fluent reading. Phonemic awareness and phonological training constitutes one of many strategies a skilled reader needs to find success as a reader.

Adams, M. (1990). Beginning to read: Thinking and Learning about print. Cambridge, MA: MIT Press.

Anderson, R., & Powell, M., (1978). Early identification of potential school dropouts: A literature review. Child Welfare, 39, 221-230.

Anderson, R.C., Wilson, P.T., & Fielding, L.G. (1988). Growth in reading and how children spend their time outside of school. Reading Research Quarterly, 23, (3), 285-303.

Baker, E. , Clegg, L. , & Robinson , R. (1998). Literacy and the Pendulum of Change: Lessons for the 21st Century. Peabody Journal of Education, 73 (3 & 4) , 15-30.

Blevins, W. (1997). Phonemic awareness activities. New York: Scholastic Books.

Blevins, W. (1997). Phonemic awareness-songs and rhymes. New York: Scholastic Books.

Bradley, L., & Bryant, P.E. (1983). Categorizing sounds and learning to read-A casual connection. Nature,301, 419-421.

Bruce, D. (1964). The analysis of word sounds by young children. British Journal of Educational Psychology, 34, 158-170.

Cardosa, C. (1995). Sensitivity to rhymes, syllables, and phonemes in literacy acquisition in Portugese. Reading Research Quarterly, 30 (4) , 808-828.

Chall, J. S. (1967). Learning to read: The great debate. New York: McGraw-Hill.

Chambers, A. (1983). Introducing Books to Children. London: Heinemann Educational Books.

Chapman, M. (1996). The development of phonemic awareness in young children: Some insights from a case study of a first-grade writer. Young Children, 51(2), 31-37.

Cunningham, A. (1990). Explicit versus implicit instruction in phonemic awareness. Journal of Experimental Child Psychology, 50, 429-444.

Cunningham, A. (1989) Phonemic Awareness: The development of early reading competency. Reading Research Quarterly, 24, 471-472.

Davenport Community Schools Highlights. [Online] http://www.k12.ia.us, July,11,2000.

Dyson, A. H. (1997). Writing superheroes: contemporary childhood, popular culture, and classroom literacy. New York : Teachers College Press.

Donnelly, M. (1987). At-Risk Students. Eugene, OR. (ERIC Document Reproduction Service No. ED 292 172)

Edwards, R. (1867). Phonics Analysis. [Online] Available http://digital.library.pitt.edu/cgi-bin/nietz/viewitem.stable, July 11, 2000.

Ellis, W. (1997). Phonological Awareness. Interventions for Students with Learning Disabilities, 25, 15-27.

Erickson, L. & Juliebo, M.F. (1998). The phonological awareness handbook for kindergarten and primary teachers. Newark: DE. International Reading Association.

Fielding, R. (1997). Explicit instruction in decoding benefits children high in phonemic awareness and alphabet knowledge. Scientific Studies of Reading, 1(1), 85-98.

Hoover, M. (2000). Problem solving-Struggling readers: A sucessful program for struggling readers. The Reading Teacher, 53(6), 474-476.

Huck, C.S. (1992). Books for emergent readers. In B.Cullinan (Ed.), Invitation to read: More children's literature in the reading program. Newark, DE: IRA.

Genisio, M. H. (1998). What goes on at school? A teachers' focus group develops a two-step plan to communicate about emergent literact practice. The Reading Teacher, 51(6), 514-519.

Glazer, J.I. (1991). Literature for young children. New York: Merrill.

Grace. Phonemic Awareness. [Online] Available http://www.teachers.net/mentors/remedial_reading/topic216/5.21.00.14.55.53.html, July 11, 2000.

Griffith P., & Olson, M. W. (1992) Phonemic awareness helps beginning readers break the code. The Reading Teacher, 45(7), 516-523.

Hollifield, J., & Stringfield, S. (1996). Preventing early school failure. Journal of Education for Students Placed At Risk, 2(1), 37-43.

Lesiak, J. L. (1997). Research based answers to questions about emergent literacy in kindergarten. Psychology in the Schools, 34(2), 143-156.

Lundberg, I. (1991). Reading and spelling skills in the first two years predicted from phonemic awareness skills in kindergarten. Scandinavian Journal of Psychology, 21, 159-173.

May, D. & Kundert, D. (1997). School Readiness Practices and Children At-Risk. Psychology in the Schools, 34(2), 73-81.

McGill-Franzen, A. (1992). Early literacy: What does developmentally appropriate mean? The Reading Teacher, 46 (1), 56-58.

McGuinnes, D. (1995). Phonological training and the alphabet principle: Evidence for reciprocal casuality. Reading Research Quarterly, 30(4), 830-852.

Meisels, S. J. (1994). Developmental screening in early childhood: a guide. Washington, DC: National Association for the Education of Young Children.

Meisels, S. J. & Providence, S. (1989). Screening and assessment: Guidelines for identifying young disabled and developmentally vulnerable children and their families. Washington, DC: National Center for Clinical Infant Programs.

Morais, J. (1991). Does awareness of speech as a sequence of phonemes arise spontaneously? Cognition, 7, 323-331.

Morrow, L. (1998). Beginning literacy: Research-based principles and practices. Professional Development Series (Vol. 2., pp. 1-6). Sadlier-Oxford.

National Commision on Excellence in Education. (1983). A nation at risk. Washington, DC: U.S. Department of Education.

Paris, S.G., & Turner, J. (1995). How literacy tasks influence children's motivation for literacy. The Reading Teacher, 48(8), 662-673.

Pikulski, J. (1989). Questions and Answers. The Reading Teacher, 42, 637-638.

Pressley, M., Rankin, J., & Yokoi, Linda. (1996). A survey of instructional practices of primary teachers nominated as effective in promoting literacy. The Elementary School Journal, 96(4), 364-384.

Riggs Institute. (2000). Helping children learn phonemic and graphemic awareness. Beaverton, OR: McCulloch, M.

Reynolds, B. (1998). Phonemic awareness: Is it language specific? Literacy Across Cultures, 2(2), 4-17.

Rosner, J., & Simon, D.P. (1971). The auditory analysis test: An initial report. Journal of Learning Disabilities, 4, 384-392.

Schickedanz, J.A. (1981). Hey! This book's not working right. Young Children, 36, 18-27.

Schwartz, R. (1997). Self-monitoring in beginning reading. The Reading Teacher, 45, 598-602.

Sensenbaugh, Roger. (1996). Phonemic awareness: An important early step in learning to read. Bloomington, IN. (ERIC Document Reproduction Service No. ED 400 530)

Siegel, L., & Vandervelden, M. (1995). Phonological recording and phoneme awareness in early literacy: A developmental approach. Reading Research Quarterly, 30(4), 854-875.

Slavin, R. (1995).Increasing the academic success of disadvantaged children: An examination of alternative early intervention programs. American Education Research Journal,32(4), 773-800.

Stahl, S. (1998). Understanding shifts in reading and its instruction. Peabody Journal of Education, 73(3&4), 31-67.

Stanovich, K. (1994). Romance and reality (Distinguished Educator Series). The Reading Teacher, 47(4), 280-291.

Stanovich, K. E., Cunningham, A., & Cramer, B. R. (1984). Assessing phonological awareness in kindergarten children: Issues of task comparability. Journal of Experimental Child Psychology, 38, 175-190.

Taylor, B., Pearson, D., & Clark, K. (1999). Beating the odds in teaching all children to read. (CIERA Rep. No. 2-006). Ann Arbor, MI: Center for the Improvement of Early Reading Achievement.

Teale, W.H. (1982). Reading to young children: Its significance for literacy development. In H. Goelman, Awakening to Lieracy. London: Heinemann Educational Books.

Teale. W.H. & Sulzby, E. (1996). Emergent literacy: New perspectives. In D.S. Strickland & L.M. Morrow (Eds.), Emerging Literacy: Young children learn to read and write. DE: IRA Press.

Terell, C., & Wood, C. (1998). Pre-school phonological awareness and subsequent literacy development. Educational Psychology,18(3), 253-274.

Torgesen, J. K. Catch then before they fall: Identification and assessment to prevent reading failure in young children. [Online] Available @http://www.ldonline.org/ld_indepth/reading/torgesen_catchthem.html, July 3, 2000.

Treiman, R. (1985). Onsets and Rimes as Units of Spoken Syllables: Evidence from Children. Journal of Experimental Child Psychology, 39, 161-181.

Trelease, J. (1985). The read-aloud handbook. New York: Penguin Books.

United States Congress (1985). S.J. Res. 102. National on Commision on Literacy.

Wagner, R.K., Torgesen, J.K., Laughton, P., Simmons, K., & Rashotte, C.A. (1993). Development of young readers' phonological processing abilities. Journal of Educational Psychology, 30, 73-87.

Wharton-MacDonald, R., Pressley, M., & Hampston, J. M. (1998). Literacy instruction in nine first grade classrooms: Teacher characteristics and student achievement. Elementary School Journal, 99, 101-128.

Wood, C. (1999). The contribution of analogical problem solving and phonemic awareness to children's ability to make orthographic analogies when reading. Educational Psychology, 19(3), 277-286.

Yopp, H. (1992). Developing phonemic awareness in young children. The Reading Teacher, 45(9), 696-703.

Yopp, H. (1995). A test for assessing phonemic awareness in young children. The Reading Teacher, 49(1), 20-29.

Yopp, H. (1988). The validity and reliability of phonemic awareness tests. Reading Research Quarterly, 23, 159-178.

APPENDICES

Appendix A

Student Survey

Informal Survey of Phonological Awareness Tasks

1. What word would be left if the /k/ sound were taken away from *cat*? (phoneme deletion)

2. Do *pen* and *pipe* begin with the same sound? (word to word matching)

3. What word would we have if you put these sounds together: /s/. /a/. /t/? (blending)

4. What is the first sound in *rose*? (sound isolation)

5. What sounds do you hear in the word *hot*? (phoneme segmentation)

6. How many sounds do you hear in the word *cake*? (phoneme counting)

7. What sound do you hear in *meat* that is missing in *eat*? (deleted phoneme)

8. What word starts with a different sound: *bag. nine. beach. bike*? (odd word out)

9. Is there a /k/ in bike? (sound to word matching)

Stanovich Keith (1994) Romance and reality The Reading Teacher vol 47 no 4 280-291

BEST COPY AVAILABLE

Appendix B1

KINDERGARTEN INFORMATION AND DEVELOPMENT SURVEY

1. Directional Positional Skills

Read each direction only once. Pause after each instruction to give the student adequate time to respond. (1 point each)

	+/-
Put your left hand on your head.	____
Lean forward.	____
Put your hands in back of you.	____
Put your hands over your head.	____
(Give the child a book.)	
Show me the front of the book.	____
(Open the book.)	
Show me the top of the page.	____
Turn to the next page.	____
Show me the bottom of the page.	____
(Hand the child a pencil.)	
Put the pencil under the book.	____
Hold the pencil above the book.	____

Total ____ (10)

2. Verbal Directions

Read each direction only once. Pause after each one. Directions must be followed exactly for credit. SAY: I'M GOING TO TELL YOU TO DO SOMETHING. LISTEN CAREFULLY FIRST. DON'T DO WHAT I TELL YOU UNTIL I SAY "GO." (1 point each)

	+/-
Shake your head, then clap your hands.	____
Raise your hand, touch your nose, and then say, "Hello."	____

Total ____ (2)

3. Sentence Memory

Read each sentence only once. SAY: PLEASE REPEAT WHAT I SAY. I SAY: "HI THERE." Child must repeat the exact words. (1 point each)

	+/-
He likes race cars.	____
We like to go to stores.	____
The monkey made a funny face.	____
The little kitten ran into the house.	____

Total ____ (4)

4. Verbal Fluency

Read each sentence only once. SAY: I'M GOING TO SAY SOMETHING BUT I WON'T FINISH WHAT I START TO SAY. "TERRY WANTS A DRINK OF COLD ___." Guide the child to an acceptable response with the example only. (1 point each)

	+/-
I like to play with my ___. (toys, friends, puppy)	____
I ate a piece of ___. (pizza, cake, apple)	____
I looked out the window and saw a ___. (dog, tree, mailman)	____

Total ____ (3)

5. Color Recognition

Show the child one color at a time. Incorrect responses may be recorded between the parentheses. (1 point each)

		+/-
red	(_____)	____
blue	(_____)	____
yellow	(_____)	____
green	(_____)	____
orange	(_____)	____
brown	(_____)	____
black	(_____)	____
purple	(_____)	____

Total ____ (8)

6. Rote Counting

Ask the child to count. Response may be recorded between the parentheses. (1 point for each three numbers through 18)

(_____)

Counted to _____ ____

Total ____ (6)

Appendix B2

7. Letter Recognition

Show the letters one at a time until the child appears frustrated. Then show the letters in the child's name that were not shown before. Responses may be recorded between the parentheses. (1 point each)

		+/-
S	(_____)	_____
M	(_____)	_____
O	(_____)	_____
T	(_____)	_____
P	(_____)	_____
N	(_____)	_____
E	(_____)	_____
X	(_____)	_____
C	(_____)	_____
K	(_____)	_____
R	(_____)	_____
B	(_____)	_____
J	(_____)	_____
U	(_____)	_____
F	(_____)	_____
H	(_____)	_____
G	(_____)	_____
D	(_____)	_____
I	(_____)	_____
Z	(_____)	_____
W	(_____)	_____
V	(_____)	_____
L	(_____)	_____
Y	(_____)	_____
A	(_____)	_____
Q	(_____)	_____

Total _____ (26)

8. Numeral Recognition

Show the numerals one at a time and ask the child to identify them. Responses may be recorded between the parentheses. (1 point each)

		+/-
two	(_____)	_____
five	(_____)	_____
one	(_____)	_____
three	(_____)	_____
four	(_____)	_____
zero	(_____)	_____

Total _____ (6)

9. Sets

Place ten identical items on the table. Provide a workspace (It could be the numeral cards.). SAY: MAKE A SET OF ___. Responses may be recorded between the parentheses. (1 point each)

		+/-
three	(_____)	_____
one	(_____)	_____
five	(_____)	_____
two	(_____)	_____
zero	(_____)	_____
four	(_____)	_____

Total _____ (6)

10. Shapes and Sorting

Place 2 circles, 2 squares, and 2 triangles on the table. Pick up a shape and ask the student to find a shape that matches. ASK: WHAT DO WE CALL THIS SHAPE? Put the two shapes down; pick up a different shape and repeat. Accept rectangle as well as square. (1 point for each matching shape; 1 point for each correct name)

	Matching +/-	Name +/-
circle	_____	_____
square	_____	_____
triangle	_____	_____
Points _____ (3)		_____ (3)
Total _____ (6)		

Appendix B3

11. **Name Writing** Have the child write his/her name in the space below.
0 points, no attempt or scribbling
1 point, first letter only
2 points, all letters (may have some reversals, but sequence is correct)
3 points, used capital and small letters correctly

Total _____ (3)

12. **Draw-a-Person** Ask the child to draw a person in the box below.
0 points, no attempt or scribbling
1 point, few parts of the body such as a head and legs
2 points, figure has a head, trunk, arms, legs; some head features
3 points, in addition to prior description has fingers, ears, and/or nose
4 points, child has arms and legs in 2 dimensions, better proportions, some clothing
5 points, good proportions and detail, i.e. neck, hands, shoulders, waistline, non-transparent clothing

Total _____ (5)